# *International Education: Productivity and Co-operatives in the Basque Country*

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**"I'm a thinker, and to me it's important for people to be from somewhere. Ideally, we should be buried in one place but our arms should reach out to the entire world, and the ideas from any culture should be of value to us…"**
Eduardo Chillida

**"*The present, however splendid it may be, bears the sedes of its own ruin if it becomes separated from the future*".**
José María Arizmendiarrieta (Ideologist and driving force behind the Mondragón Co-operative Experience)

**"In a world where progress is measured in bits and bytes, advanced technology will never be able to replace the need for good minds, strong wills, and unselfish hearts"**
Clifton Taulbert, Eight Habits of the Heart

The Idaho State Department of Education is dedicated to increasing the technical capability, social readiness, and global perspective of high school graduates in order that they will complete school with the character, skills, and knowledge to become responsible and productive citizens in their community, state, nation and world. The following lesson on the Basque Country integrates one of Clifton Taulbert's *Eight Habits of the Heart* "to incite your memory and passion so that you can employ your imagination in the building of good communities for the twenty-first century."

Taulbert, Clifton. (1997). *Eight Habits of the Heart*. New York, New York: Penguin Books.

***Within the community, dependability is being there for others through all the times of their lives, a steady influence that makes tomorrow a welcome event; and responsibility means showing and encouraging a personal commitment to each task.* Taulbert, p. 25.**

**The primary application of this lesson is to identify the factors that influence change in productivity. Character Education Component is highlighted in green. This lesson should take two block periods, or up to three regular class periods.**

## I. Content

I want my students to be able to:

A. Distinguish between production and productivity and calculate productivity per worker
B. Identify the point of diminishing returns
C. Relate the relative ability of management and labor to influence production and productivity.
D. Appreciate the personal qualities of dependability

## II. Prerequisites

This lesson could work at anytime, but would work best after covering the Comparative Economics unit (**Idaho Achievement Standards**, **Influences – Understand there are**

**many influences on economic systems, 512.01.a Explain the impact on culture, values, and belief systems on economic systems)** and basic economic concepts (diminishing returns) **(Idaho Achievement Standards, Fundamentals – Understand basic economic concepts, 510.01.b)** If you plan to participate in the International Economic Summit (as referenced throughout the Economic lesson plans posted in the Civics, Service, Character & International Education website at the Idaho Department of Education: www.sde.idaho.gov/instruct/international.asp ), it is suggested that you prearrange with the International Summit Coordinator your choice to represent The Basque Country. Countries are typically assigned in a lottery system.

**III. Instructional Objective**

Students will:

A. Distinguish between production and productivity and calculate productivity per worker
B. Identify the point of diminishing returns
C. Relate the relative ability of management and labor to influence production and productivity

**CONTENT OUTLINE**

This exercise was adapted from the Productivity lesson found in the "Guide for Teachers and Consultants" of the Junior Achievement curriculum. Students work on teams to assemble CUBES. They develop a production strategy and integrate additional workers and technology into the process to determine their impact on productivity.

The first round will consist of the production of CUBES. Each session, an additional worker will join the assembly process until every member of the team is producing CUBES. At the end of each session, teams will calculate their productivity and discuss how productivity and efficiency were impacted.

In the second round, workers will be added to the assembly process as before. In addition, teams will have the ability to purchase capital resources between sessions. At the end, students will discuss how capital resources enhanced their ability to improve productivity.

In both rounds, diminishing returns will be defined and discussed in regards to efficiency and productivity.

Round three will be an introduction to comparative economics. In this round, each team will be given all of one type of resource (scissors, tape, or color pencils). This will give each group a unique comparative advantage over the other groups. At the end of this production round, students will discuss how collaborating was the only solution to produce an end product. They will also discuss how the sum of all parts increased overall productivity and benefited everyone as a whole.

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As a final cumulating activity, The Basque Country will be used as a case study to illustrate Co-ops. It will be illustrated how cooperatives play an economic role which fosters the organization of self-help, promotes solidarity and mobilizes resources in order to further the economic and social development of their members.

## IV. Materials

- Scissors
- Printer paper
- Scotch tape
- Template of cube
- Play money
- Color pencils or color markers
- Rulers
- Classroom set of the Mondragon Cooperative: http://www.newrules.org/resources/MondragonCo-op.pdf
- "Song of the Basque" video, Dr. Julian Nava (818-677-3566). Available at the Boise State University Albertson's Library

## V. Instructional Procedures

**INTRODUCTION**

Start lesson with an introduction to co-operatives. Have students describe a co-op and its objectives. Tell the class that you are going to conduct an experiment. Explain that the classroom has been transformed into a CUBE factory. What they see before them is the next CUBE they will produce, along with the specialized machinery (scissors, tape, color pencils) needed to perform the CUBE operation. In order to operate at peak efficiency, the company has decided to determine the optimum (best) number of workers to assign to that task. The experiment will proceed as follows:

- Clear a "production area" for assembling the cubes – one worker, the rest of the company "employees" sits back and watches.
- Set up a table representing a "store" where CUBE companies may purchase templates, scissors, and paper, tape, and color pencils. COVER OR HIDE THE STORE SO THAT STUDENTS ARE NOT AWARE OF THE OPTION TO IMPROVE THEIR COMPANY UNTIL ROUND TWO.
- Divide the class up into even groups of 5-6.
- Provide them with seed money to buy supplies
- Assign a student or student aide to serve as recorder. He or she will maintain the production records on the chalkboard for all the groups.

- Tell the students what you want the production staff to do (produce as many quality CUBES as possible). Show them a quality finished product as a model.
- You will evaluate the product quality of their final product by playing the role of the "buyer" after each production period. Be fussy!

**PRODUCTION, Round One**

Ask for a student volunteer to start the first production round in each group. This will involve cutting, folding, taping, and applying company logo.

- Allow the volunteer one minute to think about how he or she will proceed, how they will produce a CUBE, and the company logo that will be placed on each CUBE. Then, give him or her one "work day" (2 minutes) to produce as many CUBES as possible.
- Provide the one worker in each group three sheets of paper, one pair of scissors, and one roll of tape.
- The other "idle workers" may not assist in any way, other than to provide words of encouragement.
- At the end of the "day", have all groups stop production. Inspect the output, certify the number produced, and then buy the CUBES with play money. Make sure the price you pay provides for a "reasonable" profit margin. Reasonable means that it should take several rounds before the company sees a profit on their capital investment. Really, it doesn't matter because you are ultimately teaching the concept of diminishing returns, but you still want to make it somewhat realistic.
- Have the recorder volunteer enter the quantity purchased on the chalkboard by illustrating a production table for each team.
- Repeat the exercise, adding one worker each time until the assembly line has all group members participating. Provide extra paper at the beginning of each session, as needed.
- For the sake of time, you may have to discretely shave time off the clock or manipulate the environment (reduce work surface or remove scissors and call it capital depreciation) to force diminishing returns.
- To further diminishing returns, create a sick day where an employee must sit out, but continues to be a cost of production

**CALCULATE PRODUCTIVITY**

The chalkboard summary (as maintained by the recorder) should look something like this for each team table:

| **#of Workers** | **# of CUBES** |
|---|---|
| **1** | **4** |
| **2** | **9** |

| | |
|---|---|
| **3** | **15** |
| **4** | **20** |
| **5** | **20** |
| **6** | **18** |

Tell the students they are now going to examine the results to see if they can draw any conclusions from them. As a first step, add a third column to the chalkboard, "CUBES per Worker."

| **# of Workers** | **# of CUBES** | **CUBES/Worker** |
|---|---|---|
| **1** | **4** | **4.0** |
| **2** | **9** | **4.5** |
| **3** | **15** | **5.0** |
| **4** | **20** | **5.0** |
| **5** | **20** | **4.0** |
| **6** | **18** | **3.0** |

Ask the following questions:

- Can anyone tell us what this new column actually measures? *productivity*
- At what point did diminishing returns set in? *E.g., when the 5th worker was hired*
- By someone suddenly being sick, did dependability increase or decrease for the other members of the team?
- Think about whom in your life you would consider the most dependable person in your life. What influences has this person had on your life?

**PRODUCTION, Round Two**

Simulate the impact of capital investment and/or improving production processes.

- Open the supply store for 3 minutes so that owners of the CUBE companies can buy the necessary tools and supplies. (Price the supplies reasonably to allow for a profit margin. But, allow students to figure out on their own that smaller CUBES will require less materials)
- During each session, add one more employee as before. This time, allow them to buy supplies from the store using the money earned from sale of CUBES.
- Calculate productivity as before after each round with the help of your recorder
- Repeat exercise until all workers are participating

Ask the following questions:

- In the first round, how did adding a new worker affect the production? What was different in the second round? How did this influence dependability? (*Were able to assign specific task with capital goods purchased, no one was idle – were able to form an assembly line, etc.)*
- Under what circumstances does it pay to invest in additional equipment? *Your results will differ, but the goals are the same – to identify the point of diminishing returns and to demonstrate how management decisions and capital investment can affect production and productivity.*
- Identify the factors that influenced changes in productivity. *Emphasize the importance of finding the right mix of workers and capital to produce goods most efficiently and at the highest levels of quality.*
- What could cause the results to be poor? *Workers can be devoted and hard working, but the production process or strategy can be inefficient.*
- Discuss ways your firm is seeking to improve both productivity and quality

**PRODUCTION, Round Three**

In this round, you will simulate the impact of co-operative productivity in a public, social and co-operative economy. Like in round one, ask for a student volunteer to start the first production round. This will involve cutting, folding, taping, and applying company logo.

- Allow the volunteer one minute to think about how he or she will proceed. Then, give him or her one "work day" (2 minutes) to produce as many CUBES as possible.
- Different from round one, you will provide each group a different resource: All groups get paper, but only one group gets all the scissors, one group gets all the tape, one group gets all the color pencils, etc.
    - Start session. Immediately, students should discover that they can not proceed because the "scissors" group can only cut; the "tape" group can only tape, etc.
    - Discuss with the groups the possible solution to this dilemma. *Groups should collaborate and share resources for the benefit of the whole, rather than the individual. Working together will be called a "co-operative".* (dependability)
- Restart production session as a "co-operative".
- During each 2 minute session, the other "idle workers" may not assist in any way, other than to provide words of encouragement.
- At the end of the "day", have all groups stop production. Inspect the output, certify the number produced, and then buy the CUBES with play money. Make sure the price you pay provides for a "reasonable" profit margin. Reasonable means that it should take several rounds before the company sees a profit on their capital investment.

- Have the recorder volunteer enter the quantity purchased on the chalkboard. Rather than several productivity charts, there should only be one chart representing the co-operative.
- Repeat the exercise, adding one worker each time until the assembly line has all group members participating.

**CALCULATE PRODUCTIVITY**

The chalkboard summary (as maintained by the recorder) should look something like this:

| #of Workers | # of CUBES |
|---|---|
| 1 | 4 |
| 2 | 9 |
| 3 | 15 |
| 4 | 20 |
| 5 | 20 |
| 6 | 18 |

Tell the students they are now going to examine the results to see if they can draw any conclusions from them. As a first step, add a third column to the chalkboard, "CUBES per Worker."

| # of Workers | # of CUBES | CUBES/Worker |
|---|---|---|
| 1 | 4 | 4.0 |
| 2 | 9 | 4.5 |
| 3 | 15 | 5.0 |
| 4 | 20 | 5.0 |
| 5 | 20 | 4.0 |
| 6 | 18 | 3.0 |

Ask the following questions:

- What happened to productivity in round three compared to the first two rounds? *Some group's productivity should have gone up, some down. But overall productivity as a whole should be an increase*
- Review discussion of what the objectives of a co-op are
- Do you think a co-op could be effective? *Comparative advantage*
- What are the strengths/weaknesses? C*omparative advantage/weaker link pulls other productivity down*
- What is a co-op attempting to do? *Overcome weaknesses of other economic systems while maintaining the strengths – same at the corporate level*
- What are examples of co-ops in the United States?

- What are the benefits of a co-op to the consumer? *Lower prices, more choices, higher quality, higher employment*

**CASE STUDY, COOPERATIVISM**

Cooperativism "is the third way, distinct from egoist capitalism and from the mastodon of depersonalizing socialism." (Don José María Arizmendiarreta)

As a cumulative exercise, students will do a comparative case study on cooperative economics in the Basque country of Spain to the traditional Capitalist model. The focus or the cooperative model will be on the Mondragon Co-op, which has been in existence for 40 years and is now one of the world's largest cooperative enterprises. Located in the Basque region it is an outstanding example of what cooperatives can achieve. A brief background:

> The Mondragón Cooperative Corporation is an experiment in building a comprehensive cooperative society in which labor plays the primary and dominant role. The Cooperative Group has amassed technical, managerial and financial resources comparable to those of a major corporation and used those resources to further social as well as economic goals that emphasize the importance of community and small and medium scale enterprise. Headquartered in the city of Mondragón, population 30,000, the Cooperative Corporation has member cooperatives in all four of Spain's Basque Provinces. The Corporation consists of over 160 cooperative enterprises, of which 90 are industrial companies, and has over 21,000 worker-owners. Its economic activities represent two percent of the economy of the Basque Provinces three and about 14 percent of the economy of the Province of Guipuzcoa, in which Mondragón is located. (Henk Thomas and Chris Logan. Mondragón: An Economic Analysis. London: George Allen & Unwin, l982.)

Show the video "Song of the Basque". (See Page 2, IV. Materials)

The paper should discuss different ways that societies can and do organize their economic affairs. Focus should be on the economic systems from both theoretical and empirical perspectives with a focus on performance of alternative systems in addressing the economic problems faced by human societies. How are product, capital, and labor markets to corporate governance, education and training, employment relations, and social welfare provision comparable?

## VI. Assessment/Evaluation

Grading should be proportional to the assignments given over the course of the semester. Evaluation should be based on quality, content, accuracy, and participation. Depending on the class, any kind of a reward might be necessary to keep students on task during the assembly phase, such as a prize for the most successful CUBE Company.

## VII. Idaho Achievement Standards

9-12.E.3.1.2 Identify ways in which the interaction of all buyers and sellers influence prices.

## VIII. Follow-up Activities

**A.** Any lesson plan outlined in the Idaho International Education Task Force Lesson Plan Bank that pertains to international relations/comparisons

B. Participate in the International Economic Summit. Information on the International Economic Summit can be found at the Idaho Council on Economic Education - http://csi.boisestate.edu/icee . Specific information on the Summit can be found at http://www.internationaleconomicsummit.org or by contacting Boise State University.

**C.** Lessons outlined in the International Economic Summit handbook. Contact the Department of Economics at Boise State University.

**D.** International economics related lesson plans available at the National Council on Economic Education. http://www.ncee.net

**E.** Link economic comparison and history to "Exploring Humanitarian Law":

## IV. References

**A.** Junior Achievement Economics, "Guide for Teachers and Consultants". One Education Way, Colorado Springs, CO 80906.

**B.** Nava, Dr. Julian, "Song of the Basque", Ambassador Productions. 818-677-3566.

**C.** Taulbert, Clifton. "Eight Habits of the Heart", Penguin Books, 1997.